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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/669,804

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Sanjeev Bagewadi

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EXAMINER

DARE, RYAN A

ART UNIT

PAPER NUMBER

2186

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/669,804	<b>Applicant(s)</b> BAGEWADI, SANJEEV	
	<b>Examiner</b> Ryan Dare	<b>Art Unit</b> 2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6, 8-11, 13, 15-18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 8-11, 13, 15-18 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 1, 8 and 15 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 1 recites the limitation "said application" in line 9. There is insufficient antecedent basis for this limitation in the claim.
4. Claim 8 recites the limitation "said application" in line 10. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 15 recites the limitation "said application" in line 12. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 6, 8-11, 13, 15-18 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kamitani et al., US PG Pub 2003/0065889.

3. With respect to claim 1, Kamitani et al. teach a method for reading ahead data pages from a network based file system, said method comprising:

determining whether a number of available data pages resident to a client node satisfied a defined condition associated with a first value, in par. 122, with reference to figs. 13A-13C; and

initiating a read-ahead operation for a second value of data pages from said network based file system provided said number of available data pages satisfies said defined condition, in par. 121, with reference to figs. 13A-13C,

receiving said second value of data pages from said network based file system for providing to said application, in pars. 122 and 130; and

adding said second value of data pages to said number of available data pages resident to said client node, in pars. 122 and 130, with reference to figs. 13A-13C.

wherein said second value of data pages can be fetched from said network based file system before an application operating on said client node consumes said first value of data pages, par. 123 and par. 130.

Note that the first embodiment of Kamitani et al. teaches continuously reading one block ahead into the cache memory from the main storage device. Therefore, with reference to claim 1, the number of available data pages that triggers the read ahead is one.

4. With respect to claim 2, Kamitani et al. teach the method as described in claim 1, wherein said defined condition is that said number of available data pages resident to said client node is less than said first value, in the second embodiment, described in par. 134. In this embodiment, data is read ahead if the number of available pages is less than the value stored in the parameter register.

5. With respect to claim 3, Kamitani et al. teach the method as described in claim 1, wherein said defined condition is that said number of available data pages resident to said client node is equal to said first value, in the first embodiment, described in pars. 121-123. The read-ahead operation takes place when the number of available data pages is equal to 1.

6. With respect to claim 4, Kamitani et al. teach the method as described in claim 1, wherein said defined condition is that said number of available data pages resident to said client node is less than or equal to said first value, in the second embodiment, described in par. 134. In this embodiment, data is read ahead if the number of available pages is less than the value stored in the parameter register. The second embodiment behaves like the first embodiment when the parameter is 1. In this special case, data is read ahead exactly one block at a time.

7. With respect to claim 6, Kamitani et al. teach the method as described in claim 1, further comprising:

providing a data page to said application operating on said client node in response to receiving a data page request from said application, in par. 99; and

subtracting a value of one from said number of available data pages resident to said client node, in the first embodiment as shown in figs. 13A-13C, where the number of available data pages is decreased by one until you only have one data page left, which triggers the read-ahead operation.

8. With respect to claims 8-11 and 13, Applicant claims a computer readable medium having computer readable code embodied therein that performs the method of claims 1-4 and 6, and is therefore rejected using similar logic.

9. With respect to claims 15-18 and 20, Applicant claims a computer system comprising a processor; a data bus coupled to said second processor; and a memory device coupled to communicate with said processor for performing the method of claims 1-6, and is therefore rejected using similar logic. Kamitani et al. disclose a processor; a data bus coupled to said second processor; and a memory device coupled to communicate with said processor in fig. 7, numerals 1, 7, and 2, respectively.

### ***Response to Arguments***

10. Applicant's arguments filed 4/27/06 have been fully considered but they are not persuasive.

11. In response to applicant's arguments on pages 8, regarding independent claims 1, 8 and 15, that the references fail to show certain features of applicant's invention, it is noted that the features upon which Applicant relies (i.e., "the claimed invention does not wait till a last word of a page in a block is read before initiating a read-ahead request" and "The claimed invention initiates a read-ahead request after each page is presented

to the application running on the client node”) are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

12. With respect to Applicant’s argument on page 8, that “Kamitani does not suggest or teach monitoring the number of available data pages as soon as a data page is served to the application”, the examiner would like to again point out that this limitation is not in the independent claims. The independent claims merely recite that the second value of data pages can be fetched from said network based file system before an application operating on said client node consumes said first value of data pages. The examiner has shown that Kamitani teaches this, since the upload (read-ahead operation) is performed before the data is needed (see par. 123).

13. With respect to Applicant’s argument on page 8, that “Kamitani does not suggest or teach verifying the number of available data pages”, the examiner respectfully disagrees. With reference to figs. 13A-13C and pars. 122-123 of the specification, it can be seen particularly in fig. 13B that once the system starts reading block 3, that the block 4 is uploaded. Therefore the system has verified that the number of available data pages is only one (i.e. block 3).

14. With respect to Applicant’s argument on pages 8-9 that Kamitani does not “suggest or teach maintaining a total number of available data pages to the client node and verifying this total number of available data pages against a defined (first) value”,

the examiner would like to again point out that the value of available data pages that triggers a read-ahead operation is one.

15. In response to Applicant's argument that external memory and a network based file system is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the examiner contends that Kamitani mentions in pars. 36-37 that these are analogous arts, by mentioning network protocol. One of ordinary skill in the art thus would have been motivated to implement Kamitani's invention in a network based file system. In addition, the examiner would also like to add that although the source of speed problems may differ slightly as mention by applicant on page 9, lines 2-8, that since speed problems occur with both systems, one of ordinary skill in the art would have been motivated to use network caching systems to solve problems with external memory caching systems and vice versa. Also, an external memory can also be interpreted to mean a memory that is accessible over a network link, within the confines of a network based file system.

### ***Conclusion***

16. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to



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consider these references fully when responding to this action. The documents cited therein teach similar read-ahead caching systems.

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Dare whose telephone number is (571)272-4069. The examiner can normally be reached on Mon-Fri 9:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (571)272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ryan A. Dare  
Jul 9, 2006



HONG CHONG KIM  
PRIMARY EXAMINER